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AUGUST  
1948

JOURNAL OF THE WIRELESS INSTITUTE OF AUSTRALIA



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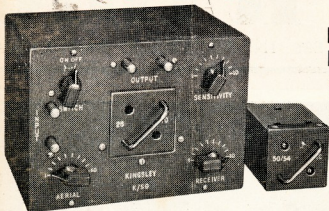


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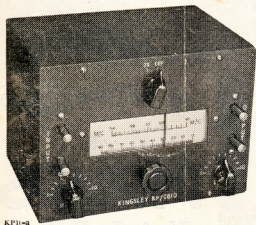
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# AMATEUR RADIO

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## EDITORIAL



The history of the communication of information from one person to another has often been reviewed and the various stages from smoke signal to the radio flash have filled us with wonderment and admiration for the ingenuity of man. The smoke signal was purely an amateur affair and coded puffs made communication an easy accomplishment within visual range. This primitive system has long been abandoned progressively giving way to telegraphy, telephony, and finally radio communication. Yes, the countryman has long since abandoned the smoke puff in favour of the Type 3 Mark 2 now so capably handled by the licenced Amateur in the service of his fellow men in times of difficulty.

From our knowledge of this world there will never be a surfeit of reliable information, and at no time is this more necessary

than when human lives are in danger. Elsewhere in this issue is the record of a splendid Amateur achievement concerned with the speedy location of a child lost in the bush, and the enterprise of the Amateur in times of emergency as evidenced in the recent disastrous floods on the North Coast of New South Wales.

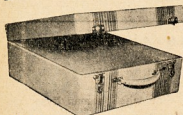
These contingencies will occur countless times in the future involving young and old, and there will be many opportunities awaiting the Amateur for fine service. It is our sincere hope that our allocation of emergency network frequencies will long remain as our avenue for the humane assistance we so gladly offer. This is a controlled and skilled assistance that never sleeps, and merits the warm appreciation it is now receiving in official quarters.

P.E.

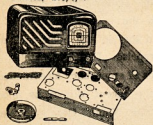
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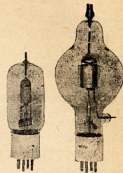
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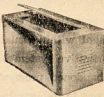
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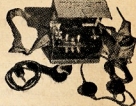
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# 100 WATTS FROM CLASS B 807s

It is one of the duties of the Technical Editor to scan all overseas publications coming to the W.I.A., with the object of reproducing any technical matter which would be of interest to readers of "Amateur Radio."

With this view in mind a new circuit for using our popular 807s in Class B is presented. The theoretical details of the circuit are reprinted from R.C.A. "Ham Tips," and a practical Speech Amplifier and Modulator, using the new circuit, from the English "Short Wave" magazine, February, 1948.

During the intervening years since its development by R.C.A. back in 1936, the 807 has become the Amateurs' number one favourite r.f. transmitting tube.

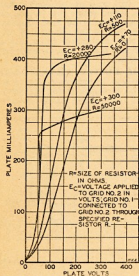


Fig. 1.—Effect of the resistor in the No. 1 grid circuit upon  $E_b$  versus  $I_b$  characteristics.

However, comparatively little use has been made of its excellent class AB<sub>1</sub> characteristics in a.f. modulator service, perhaps because of the difficulties encountered in providing the required regulation of control-grid and screen-grid voltages.

In order to avoid these difficulties, the possibility of using this tube as a zero-bias triode in Class B audio service was intriguing. Its low price, its small size, and its ability to deliver a great deal of power at low plate voltage provided the impetus for a series of experiments.

The first idea was to tie the control grid and the screen grid together in a manner similar to the way the old type 46 was operated in zero-bias Class B service. This produced a low-permeance triode with a plate family of curves that looked like the receding hair line of the Java Ape Man. It would be no brain wave to operate on such a plate family either, for distortion is high and the efficiency low.

Another idea was to ground the control grids and put the driving signal on the screen grids at zero bias. The arrangement produced a good plate family, but required excessive driving voltage for satisfactory power output. Several other schemes were tested with varying results—and then it happened!

One hundred and twenty watts of audio—with less than 6 watts of driving power—at only 750 plate volts. What's more, it's very simple. Just connect the cathodes to ground, put the driver transformer between the screen grids, and ground the centre tap. Then, connect the control grid of each tube to its screen grid through a 20,000 ohm resistor. That's all there is to it.

During the development of this circuit, plate families were taken with various values of resistance between the No. 2 grid and the No. 1 grid. The series of curves shown in Fig. 1 illustrate the effect of the resistance in the No. 1 grid circuit upon the shape of the diode line. The driving voltage designated  $E_c$  is that which is applied direct-

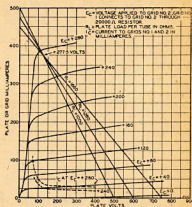


Fig. 2.—The 807 plate family with a 20,000 ohm resistor in the No. 1 grid circuit.

ly to the No. 2 grid. Low values of resistance give poor knees, but as the resistance is increased, the knees improve, until the optimum condition is reached at about 20,000 ohms.

With this value, it can be seen from Fig. 2 that a satisfactory plate family is produced. Grid current curves for the new zero bias connection are shown as dotted lines, and plate load lines are shown for three operating voltages. With a 750 volt supply, a plate-to-plate load of 6,600 ohms, and a driving source giving 555 peak volts grid-to-grid, 120 watts of audio are available. The power to drive the grids is greater than that needed for Class AB<sub>1</sub>, but this is no hardship because a push-pull triode driver will easily furnish the 5.3 watts needed. Fig. 3 shows the circuit for driver and output stages used in the tests.

The only important technical difference between zero bias 807s and regular zero bias Class B triodes is in the values of positive grid impedance. Whereas

## OPERATING DATA FOR 807s IN CLASS B

Plate Supply Voltage	750	600	500 volts
Peak A.F. Grid-to-Grid Voltage	555	555	555 volts
Grid Driving Power	5.3	5.3	5.3 watts
Grid Imped. per Valve	7100	7100	7100 ohms
Grid Bias	Nil	Nil	Nil
Plate-to-Plate Load	6650	5050	4000 ohms
Anode Current (2 valves)			
No Signal	12	10	8 Ma.
Max. Signal	240	240	240 Ma.
Audio Output (approx.)	120	90	72 watts

Fig. 3 (at the right)

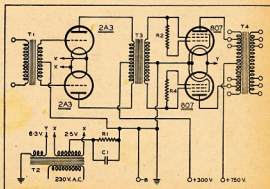
T1—Input audio transformer.  
T2—Filament transformer.  
T3—Driver transformer.

T4—Modulation transformer.

R1—780 ohms, 10 watts, wire wound.

R2, R4—20,000 ohms, 1 watt, carbon.

C1—16 or 20 uF, 100 volt, electrolytic.





ratio being the square root of the ratio of driver load impedance to the grid impedance of the 807s. With the Class A 6L6 used as shown, with cathode bias, 300 volts on the screen, requiring a load of 4,500 ohms to realise the full output of 6.5 watts. This latter figure is taken from the published characteristics, and does not, of course, take into account transformer and other losses. In choosing a driver valve or valves these losses should be borne in mind, and it is as well to budget for a driver stage which will deliver 15 or 20 per cent. more audio than is theoretically required for any given output.

A driver transformer is thus required which will match a 4,500 ohm impedance into 14,000 ohms. The impedance ratio of the transformer will therefore have to be 1 : 3.2, making the required turns ratio 1 : 1.8, i.e. the square root of the impedance ratio. A normal Class B transformer will serve the purpose with primary and secondary reversed, assuming the transformer has a centre tapped primary.

Such transformers seem difficult to come by, as the usual driver transformer for Class B and AB<sub>2</sub> amplifiers, although having a step-down from primary to secondary, invariably has an untapped primary. If any difficulty is experienced in obtaining a transformer of the correct step-up ratio, two 5 or 6 watt universal output transformers offer an alternative arrangement; the low impedance winding of one, carrying the output of the driver valve, being connected to the low impedance winding

on the other transformer, the secondary of which is connected between the 807 screens.

By experimenting with the adjustable primary taps, it will thus be possible to arrive at a correct match between the driver and modulator.

The writer was fortunate to obtain a 1 : 2 step-up transformer from a piece of ex-service equipment. It originally functioned as a modulation transformer matching a pair of 12A6s into an 832, and worked perfectly as a driver transformer when using the 6L6 driver, despite the small discrepancy ratio. (Sounds like a 522 modulation transformer—Ed.)

As a matter of interest the writer has driven the 807s in Class B using a 6F6 driver, with 290 volts on the plate, preceded by a 6J7 and 6C5, and a crystal microphone. With this set-up an 80 watt carrier was modulated 100 per cent. with the audio gain one-third advanced. The driver transformer used to match the 6F6 into the 807 grids was a 1 : 1.4 step-up. The anode voltage on the modulator was 700 volts, the same transformer being used to supply h.t. to the Class C r.f. stage. Conditions of operation in this case were not at all favourable as the regulation of the power supply was none too good, and yet reports received indicated that the speech quality was really excellent, there being no trace of distortion.

One or two stations have been heard on the air complaining that they have been unable to obtain the expected output from the Class B 807s, but in

every case it has been evident that the wrong conditions were the cause of the failure.

Once the simple principles of matching the driver stage to the modulator grids have been grasped, and the correct step-up ratio of the driver transformer has been obtained, the audio output is limited only by the 807 plate voltage and the amount of voltage swing obtainable at the grids.

If the modulator has been converted from the usual Class AB<sub>2</sub> 807 circuit it should be borne in mind that whilst the required driving power for AB<sub>2</sub> operation is 0.2 watts, at least 5.3 watts audio will be required to obtain the full audio output from the 807s in Class B.

## OPERATING DATA WITH LOWER PLATE VOLTAGES

Perhaps the constructor has a 500 or 600 volt transformer which he would prefer to use with the 807 modulator. A power supply incorporating such a transformer will enable the 807s to deliver an output of from 70 to 90 watts.

A set of operating conditions is therefore appended for plate voltages of 500 and 600. As the average plate current in each case works out at about 240 Ma., the secondaries should be rated for at least 300 Ma. working current, otherwise, apart from the risk of a burnt out secondary, the voltage regulation will be inadequate to cope with the large plate current swing.

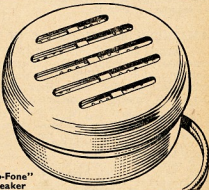
It should be noted that for each set of operating conditions, grid driver requirements remain the same, in order that maximum audio output may be obtained for each plate voltage figure.

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# HAMS TO THE RESCUE !

## RADIO AMATEURS HELP SEARCH FOR BABY

Four Amateur Radio Operators in Gippsland and North Essendon (Vic.) guided a search party of nearly 500 farmers and police in their hunt for a baby boy who was lost all night in the bush, several miles from Maffra on 9th July.

The baby was Peter Daly, aged 2, who strayed from a truck while his father was cutting timber in rugged country cut by gorges sometimes 200 feet deep.

Early on Saturday morning the Maffra police, who had been hampered by lack of communication between the search parties, enlisted the aid of the W.I.A. Emergency Network—Eastern Division.

Keith Scott (VK3SS), Jim Long (VK3AJL), and Ossie Kellas (VK3AHK) arranged a net as follows: 3AHK base station at Tinamba with landline communication with Maffra Police Station, 3SS and 3AJL portable. This arrangement rendered communications between the two search parties and Maffra Police via 3AHK.

With this efficient set-up the Police in the bush search party soon realised that more speedy communications with Russell Street (D24) were necessary and would be obtained if a station in Melbourne could be contacted to work direct with 3SS.

3AHK put out a "CQ Melbourne Urgent" call and Mr. Ellis Pottage (VK3JP) made contact and passed on a message to Reg Busch (VK3LS) to take the Melbourne end on the Emergency Frequency of 6984 Kc.

With this arrangement messages between the field search parties and D24 were handled in a matter of seconds until the search was successfully concluded.

It might be pointed out that D24 readily accepted the communication facilities and passed their regards for the assistance given by Amateur Radio.

For those interested in portable work in general, and emergency communications in particular, a description of the equipment used is as follows:—

VK3SS.—Portable with search party No. 1 used a Type 3 Mark 2 Transceiver, cathode modulated with 6V6 audio amplifier; antenna a single wire attached to nearby tree. This station was situated in dense bush.

VK3AJL.—Base station using Type 3 Mark 2, cathode modulated; later transferred to field party No. 2 using a 108 Transceiver used as a Walkie Talkie with attached whip antenna.

VK3AHK.—Base station used a Type 3 Mark 2, cathode modulated. Single wire antenna.

VK3LS.—Home station, 6V6 crystal oscillator, 807 p.a., plate modulated with p.p. 6V6s, antenna half-wave horizontal.

## MELBOURNE EMERGENCY NETWORK

It is proposed to develop a Melbourne Emergency Network which will be capable of rendering assistance within a radius of approximately 50 miles of Melbourne.

If you are interested write immediately to the Divisional Organiser of Emergency Communications, Law Court Chambers, 191 Queen Street, Melbourne, giving the following particulars:—

Name and address, call sign, phone (if any), car (if any), home station equipment, portable equipment (if any), business phone, availability during working periods for extreme emergency.

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There has long been a need for some sort of suitable Log Book in which radio amateurs could record their experiments and radio communications. The AMATEUR RADIO STATION LOG BOOK makes provision for this, apart from making space available besides experimental records for any reference matter. The Log Book contains 112 pages, size 10" x 8". It sells for 3/6, plus 7d. regd. post.

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and TECHNICAL TOPICS RADIO HANDBOOK, a reference book on radio servicing. Price 7/6, plus 9d. regd. post.

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## AMATEURS AGAIN ASSIST IN NORTH COAST FLOODS

Several of the North Coast (N.S.W.) Amateurs did some fine emergency work during the devastating floods that swept the area during mid-June. With little warning Amateurs found themselves in a position where they could serve the community by supplying emergency communication.

An outstanding effort was that of Norm Carpenter (VK2RK), of Murrumbidgee. On 14th June, while the cyclone was at its height, it appeared as if the local broadcast station would lose its aerial system or the power system would fail. In view of this happening, VK2RK arranged announcements to be made over the broadcast station to the effect that VK2RK would broadcast on 7 Mc. in the event of any failure. The inevitable happened, the power failed and VK2RK opened up on 7010 Kc. and for four hours broadcast flood bulletins supplied by the local flood committee. These were made at 10 minute intervals.

The transmitter was run from a battery p.a. system used as a modulator, a local radio dealer coming to 2RK's assistance for the latter. Congratulations to Norm on a job well done.

Down in Maclean VK2OE was requested to stand-by by the local postmaster in case of emergency, which fortunately did not eventuate.

VK2GI, at Woodford Leigh on the Clarence, was without power for days. The diode monitor was converted to receive the local broadcast station and the flood warnings.

On the lighter side—2LH found motor cars and refrigerators on his property. 2NY had the doubtful honor of seeing his QSL cards floating in five feet of water in his shack. 2XO's gear was rapidly stored in the garage roof.

Actual damage to equipment was small and from all accounts radio gear had a high priority in removals—sometimes ahead of furniture.

All the North Coast gang stood by for hours to see if they could be of any assistance.

Peter Alexander (VK2PA), North Coast Zone Officer, who supplied the above news, also reports that a very strong move is under way to organise a battery operated net to come into operation in any future emergencies.



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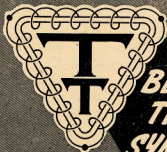
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# QUESTIONS AND ANSWERS

Our thanks to all who have sent in answers, or who have located people with the answers. You are doing a good job, thanks a lot. In common with other magazine correspondence, the address of this column is now "Q and A," "Amateur Radio," Law Court Chambers, 191 Queen Street, Melbourne, V.C.I.

A.1.—As you saw last month, VK3ASG came good just as we were going to press. Since then he has sent in more information as follows.

"Considering the purpose for which this line was originally designed, the velocity figures compare very favourably with some cables with solid and beaded insulation especially designed for r.f. work. Laboratory tests have shown Nylax flex to work well as feeder—up to 50 Mc. I would be interested to hear the findings of anyone who has conducted tests with Nylax on higher frequencies. Many are using Nylax to feed 144 Mc. systems with success, including VKs 3HE, 3EL, 3TO and 3TC.

"Measured at 45 Mc. the velocity factors are:—

Colour	Velocity Factor
Blue .....	0.7
Black .....	0.69
Red .....	0.76
Brown .....	0.71
White .....	0.695
Yellow .....	0.658
Clear .....	0.7

"At this juncture I would like to extend my sincere thanks to Mr. T. L. Martin, of Moulded Products Ltd., for his interest in having this information collated. Mr. Martin advises, in response to enquiries, that the sole distributors of Nylax Cables are A.P.I. Cables and Insulation Pty. Ltd., Melbourne."

A.3.—This seems to have the boys tricked. 3VZ, the Technical Editor, politely declined to comment. When the question was raised in other quarters the standard answer was "It all depends;" but as to what it all depends on was rather obscured in the resulting argument.

So your scribe suggests that the quickest way to find out is to measure the impedance.

## A TECHNICAL TIDBIT

That new final of yours has just been completed, and you anxiously throw the high voltage on, and dip the final plate current to resonance. Then you couple in the antenna, again dip to minimum plate current, and finally make sure that you have maximum radiation from the antenna by checking with a neon bulb on the antenna, by again retuning the final plate condenser. In this simple operation you have passed over several points which will inform you as to how the final and the feeder system is working.

When final plate current is dipped to a minimum value with no load on the

The simplest way of doing same would seem to be to set the 807 going with normal plate voltage and drive, then to measure the screen current as the screen voltage is varied, say in 25 volt steps from the initial 150 volts. This should be taken far enough to include the full voltage swing of the screen on full modulation. If the screen current is graphed against screen voltage, then the tangent to the graph at 150 v. is the a.c. screen impedance. Also it will be obvious as to how constant this impedance is over the voltage swing. This process is really the same as measuring the plate resistance of a valve except the screen resistance is wanted here.

A.4.—From VK4FM, VK3FW, VK2CS and C. B. Fisher we have this information on the 280/80. It is really four voltage regulators in one, having four anodes and a common cathode.

Socket: 5-pin English.

Other designations: VS69 or CV1069.

Connections:

Pin	Anode 4	.....	Voltage	Regulat'n
1	Anode 4	.....	+282	5%
2	Cathode	.....	0	
3	Anode 2	.....	+143	10%
4	Anode 3	.....	+205	7%
5	Anode 1	.....	+73	15%

Each anode has a maximum current rating of 40 Ma. and the cathode current, which is the sum of all the anode currents, must not be greater than 80 Ma. Unused anodes should not be left floating but connected by 100,000 ohm resistors either to earth or to B+; the anodes of higher voltage than the ones used being taken to B+ and those of lower voltage to earth. The striking voltage is 363 volts.

A similar tube is the 280/40 which has the same socket connections and operating voltage, but each maximum anode current is 30 Ma. and maximum cathode current is 60 Ma.

### NEW QUESTION

Q.5.—A lot of disposals v.h.f. gear is described as operating on such and such a band. Can anyone supply the frequencies corresponding to G., I., L. and P. bands? Also, for interest, any other band frequencies you know.

settings will be the same, but the fact that they are the same does not necessarily imply that the line is flat. It will be necessary to check the line by other methods to guarantee the absence of standing waves.

The next thing to examine is how the condenser setting changes when going from minimum loaded plate current to maximum power output. That is, check the condenser setting when you have minimum plate current and the final is loaded. Next, check the antenna output by means of a field-strength meter and tune the plate condenser until the final is putting out the maximum power as indicated by the field-strength meter. If these points coincide, the final tank circuit has a proper loaded Q. However, if these two tests do not give the same condenser setting the Q is not right in the final tank circuit. To correct this add more C across the final coil.

Maximum power output and minimum loaded plate current depend upon the power factor and the impedance in the final tank circuit. Zero power factor and maximum impedance occur together only in high Q circuits (a Q of 12-15). If you have too low a Q you must operate with either one condition or the other, that is, with minimum loaded plate current, which does not give maximum power output, or with maximum power output which will not give the lowest possible plate current.

If you operate with minimum loaded plate current, you effectively lose power output due to poor plate-circuit efficiency. If you operate at maximum power output the tube efficiency is low and it is not possible to obtain full use of the tubes. Obviously, therefore, it is desirable to operate so that minimum loaded plate current and maximum power output occur at the same setting of the final tank condenser. Another reason to make sure that you have a high Q tank is that harmonic radiation is aggravated in a low Q tank circuit.

When tuning occurs most often on the lower frequencies, and is a simple matter to remedy. Add capacitance across the final tank coil, removing turns from the coil as you go, until you have sufficient capacity to make the two points mentioned above coincide.

Too high a value of C will cause high circulating current in the tank coil, but this will not occur unless you add a great deal more capacity than is needed to get a high Q tank.

Once you have the minimum loaded plate current and maximum power output fixed, these two points will be inseparable, regardless of your feeder system. However, these two points, which are now coinciding, may not coincide with the unloaded minimum plate current point. However, all three points will be the same when you have a flat line, and the first two points will differ from the unloaded minimum plate current point when you have standing waves. The same precaution still holds if all three points coincide. This does not guarantee that the line is flat and separate tests must be made to verify that point.—"Ham News," April, 1948.

# CONTEST NEWS

## REMEMBRANCE DAY CONTEST 1948

The Remembrance Day Contest is to be an Annual Contest to perpetuate the memory of those Australian Amateurs who gave their lives for their country during World War II. It is to be held during the week-end nearest to the 15th August in each year—the date on which hostilities ceased in the South West Pacific Area.

A handsome Perpetual Trophy will be awarded annually for competition between States, and will be inscribed with the names of those who gave their lives, so perpetuating their memory throughout Amateur Radio in Australia. The name of the winning State for each year will also be inscribed on the Trophy.

### RULES

1. The Contest will commence at 1800 hours E.A.S.T. on the 14th August and continue through until 1800 hours E.A.S.T. on the 15th August, 1948.
2. The Contest is open to all Australian Amateurs, but only members of the W.I.A. are eligible for the awards.
3. The Contest is an open contest—c.w., phone or a combination of both may be used.
4. The Contest is an Interstate Contest, and Amateurs in each State will endeavour to contact Amateurs in all other States.
5. A station may be operated by more than one operator provided that a separate log is entered for each operator under his own call sign.
6. All present amateur bands may be used, and all transmissions must conform with the regulations as laid down in the P.M.G.'s, "Handbook for Operators of Amateur Wireless Stations," January, 1948. Any breaches of these regulations will lead to the disqualification of the station concerned.
7. The arranging of schedules for contacts on other bands will not be permitted.
8. All stations entering the Contest will call "CQ RD" if using c.w. and "CQ Remembrance Day" if using phone.
9. A State competing for the Trophy must submit a minimum of six (6) logs from members before becoming eligible for contesting the Trophy.
10. Only one contact per station per band is permitted.
11. Each participant shall assign himself a three figure number. When more than one operator operates the same station each must assign himself a separate three figure number.
12. The exchange of serial numbers shall be the same as for the last DX Contest. The first three figures are those chosen in Rule 11 above and will be retained by the station throughout the Contest; and the second three numbers will commence with 000 for the first contact and for subsequent con-

tacts will be the first three numbers of the station of the previous contact. A complete exchange of signal reports must also take place before any points may be claimed for the contact.

### SCORING

13. In order that an equitable distribution of points for States with a large number of contest stations to a State with fewer contact stations may be determined, a sliding scale of points has been allotted as shown in the Table appended.

14. In addition to the points in the Table that may be scored, a bonus of 25 points may be added to the total score for each State worked on 50 Mc. or above.

### LOGS

15. The log submitted must show in the following order: Date, Time (GMT), Station Worked, Band, Type of Emission, Signal Report Sent, Signal Report Received, Serial Sent, Serial Number Received, and the Points Claimed. A statement signed by the operator must be attached at the conclusion of the log, showing that the regulations (see Rule 6) and these Rules have been observed. Any logs departing from this form will be automatically disqualified.

16. All logs must be forwarded through the Contestant's Divisional Council, to reach Federal Executive, Box 2611W, G.P.O., Melbourne, on or before the 6th September, 1948.

### AWARDS

17. Attractive certificates will be awarded to the First, Second, and Third Highest Stations in each State. There shall be no outright winner. Where a large number of logs are received from any one State, further awards may be made at the discretion of the Contest Committee.

18. The State to which the Perpetual Trophy is to be awarded shall be determined by the highest average score of the first highest six (6) logs (as mentioned in Rule 9) in each State.

19. The Trophy will be forwarded to the winning State in its container and will be held by that State for a period of 12 months until the winner for the following year is determined. Further details on the forwarding of the Trophy etc. will be given later.

20. The Contest Committee shall be the sole adjudicators, and their ruling shall be binding in the case of any dispute.

### TABLE

	TO								
	VK	VK2	VK3	VK4	VK5	VK6	VK7	VK9	Total
FROM	2	-	1	2	3	5	4	6	21
	3	1	-	3	2	5	4	6	21
	4	1	2	-	3	6	5	4	21
	5	2	1	3	-	5	4	6	21
	6	1	2	4	3	-	5	6	21
	7	2	1	4	3	5	-	6	21
	8	1	2	3	4	5	6	-	21
	9	1	2	3	4	5	6	-	21

## RESULTS OF 1948 TRANS-TASMAN CONTEST

Judging by the number of logs received, far fewer stations participated than was hoped, but those who did take part enjoyed it to the full. It was unfortunate that another contest was being conducted by the N.Z.A.R.T. and this coincided with the Trans-Tasman. The numbering system was not the same and did cause some confusion and this must emphasise the desirability of having a universal system of exchanging numbers. Then should two contests be run at the same time, only one set of numbers need be exchanged.

In addition to the list below, a couple of check logs were received.

### AUSTRALIA

Open		
VK7AB	.....	1728 Points
VK4XJ	.....	504 "
VK3HG	.....	480 "
C.W.		
VK2QL	.....	1296 Points
VK3UM	.....	510 "
VK3ZC	.....	432 "
VK4JF	.....	72 "
VK4RC	.....	72 "
VK3XB	.....	36 "

Phone		
VK2CI	.....	912 Points
VK3QK	.....	27 "

### NEW ZEALAND

Open		
ZL3HC	.....	2204 Points
C.W.		
ZL1MB	.....	1764 Points
ZL2BH	.....	342 "
ZL1KU	.....	144 "
Phone		
ZL3HC	.....	519 Points
ZL4HJ	.....	120 "

A fairly high-scoring log was received from VK2RA some time after the closing date and it is regretted that it could not be accepted.

### HARMONICS

Heard on the broadcast band in W.A. recently. The announcer on a commercial broadcast station was concluding a daily request session for a repatriation hospital. The sign-off went something like this—

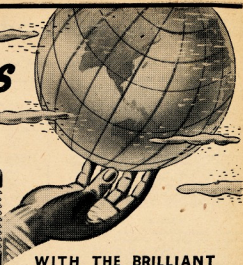
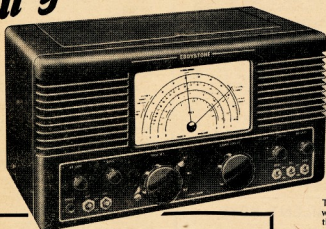
"Well, that's all for today, but we'll be back again tomorrow at the same time when we'll call Ward Number—let me see, what Ward do we call tomorrow" (fumbles among some papers on announcer's desk), "I think it's here—QRX a moment, will you!"

You're right! That announcer was a Ham—in fact it was VK6ND.

NOTE.—Read the Table from Left to Right for points for the various States, e.g. a VK2 scores: 1 pt. for VK3 contact. 2 pts. for VK4 " etc. a VK6 scores: 1 pt. for VK2 contact. 2 pts. for VK3 " etc. 4 pts. for VK4 " etc.



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2. Designed to operate from Standard AC Mains with inputs of 210 volts, 200/240 volts, 40/50 cycles as well as from a 6 volt battery by the use of a separate vibrator unit.
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7. CRYSTAL FILTER is vacuum mounted to provide a high degree of stability. Phasing control and "in/out" switch are brought out to the front panel.
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 GDW—A. W. Hawksworth, Lot 49, Butcher St.,  
 Bruce Rocks.  
 GHR—L. H. Roeger, 59 Landsdowne Rd., South  
 Perth.  
 VK7BM—W. S. Morrison, 20 Main Rd., Moonah.

## FEDERAL QSL BUREAU

RAY JONES (VK3RJ), MANAGER

An interesting visitor to the July meeting of the Victorian Division was Lt. Terry Madden, ex-VK2CO, who is being demobilised in Australia with a view to settling in this country. Terry, when called upon to relate some of his Ham experiences in India, modestly declared that apart from running a

15 watt transmitter with which he kept eked with "Burma and Tibet," he had little else to relate.

Another interesting visitor to the meeting and to as many Ham shacks as his stay in Melbourne permitted was David Mitchell, ex-GWIA, and G2H. David is on his way to New Zealand on the "Athens" and intends settling in ZL and doubtless will have the pleasure of making a contact with him under his ZL call sign. The writer got quite a thrill when David produced writer's QSL cards for contacts in 1932 and 1933. David was also able to give first hand and authentic information on the current food situation in Great Britain.

A card from a little known country recently came to hand. It was from PX1A in Andorra which the card describes as "almost a free republic between France and Spain." The card also states that "1 of the sole Ham in Andorra." Any other PX stations heard are pirates" and solicits QSLs to go via Box 273, Chihuahua, Mexico.

John Gore (VK3JG) who is getting more than his share of current DX, had the misfortune to have his pole and antenna carried away by the gales that beset our oldest State during the end of June.

A card to hand from the expedition "Don Waki" with the call sign above as VPTNG, "In the beautiful Bahamas," bears the superscription "New WAXN" but does not state which of the three operators listed on the card now has the latest call.

Another unusual card is that of HP2CA Portable Marine and bears the information that HP2CA operated on board a former American freighter now registered under the flag of the Republic of Panama, but is not a licensed Panamanian amateur radio station. The card related to a contact when the ship was near Martinique and solicited a QSL care Radio CX1CX, Box 11, Montevideo, Uruguay.

July must have been the month of unusual QSLs as a further card came to hand from LZ1AA, Box 850, Sofia, Bulgaria, stating that the station is the first official LZ amateur station and this contact was his first DX QSO.

QSL traffic via the Federal Bureau for June registered an all time high totalling over 400 contacts. This tally eclipsed the previous record by a couple of hundred cards.

For the benefit of new licensees the QSL set-up in Australia is recapitulated—

Federal Bureau: Box 2611W, Melbourne, or 23 Lansdale Street, Box Hill, E.11, Victoria, distributes in bulk to the State Bureaux all orders for incoming to Australia and vets cards for W.A.C. and W.R.E. Certificates.

VK2 Bureau: 78 Maloney Street, Eastlakes, N.S.W., distributes for New South Wales.

VK4 Bureau: 38 Felix Street, Woolowin, N.S. Brisbane, distributes for Queensland.

VK5 Bureau: 8 Brook Street, West Mitcham, S.A., distributes for South Australia.

VK6 Bureau: Box F219, G.P.O., Perth, distributes for Western Australia.

VK7 Bureau: 6 Thirza Street, New Town, Tasmania, distributes for Tasmania.

VK8 Bureau: 26 Lucas Street, Caulfield, S.E.S. Victoria, distributes for Victoria. Where applicable please see that your State Manager always has a stamped addressed envelope on hand for you. This will help him and you too. Outward bound cards from Victorian Stations should be sent to 190 Thomas Street, Hampton, Vic.

A note to hand from that old-timer Mart Chaffier, owner of many varied call signs and now signing VK3MH discloses that Mart is as keen as ever and is awaiting the completion of a new home in Ballarat. Until then his QTH is care 3BA, Ballarat, Victoria.

VK2VL informs us that in a recent QSO with VP1AA, Belize Honduras, he asked him to convey to other VKs that they would soon receive their outstanding cards from him.

## NEW SOUTH WALES

About 100 members attended the general meeting on the 25th June. The chief attraction for the evening was a very instructive and interesting lecture by Mr. J. R. Reed (VK2JR), Chief Engineer of the Transmitter Department at A.W.A. He dealt mainly with methods of varying the frequency of crystal controlled transmitters. He then spoke on feeder lines to aerials, neon lamps as voltage regulators and a 100 watt motor car motor, 807s. Altogether it was a most illuminating evening. Full details are being prepared by Mr. Reed for publication.

During the evening the President announced the election of the Council for 48-49 as follows: President: Mr. M. Meyers (VK2VN); Vice-Presidents: Mr. J. Moyle (VK2JU) and Mr. H. F. Friehe (VK2BX); Councilors: Mr. J. Corbin (VK2VC), Mr. C. Hutchison (VK2YP), Mr. N. MacNaughton (VK2EH) and Mr. A. Thurston (VK3AV); Secretary: Mr. W. L. Nye (VK2XU); Treasurer: Mr. B. Anderson (VK2AND).

After inactivity for about six months VES2AN is building a house at Miranda and will soon be on the air again. 2JP, 2ALO and 2OQ have been very active in the DX field of late and have made some fine contacts on 14 Mc. 2PH recently visited North Coast Hams during his honeymoon. 2EV prefers 809 to beam tubes in his final. 2XJ has finding conditions poor in early mornings on 14 Mc. 2AIM using c.w. and phone on 7 and 14 Mc.; interested in 8JK rotary. 2PA and 2TA down in the City, visited quite a number of shacks. 2TF has new receiver complete with all mod. cons. 2AIB has nice signal on 7 Mc.; ask him about his DX on 7 Mc. 2BA after solving the receiver design, now has to construct same. 2VQ's new QTH is Manly and hopes to be on soon again. 2XJ has nice compact equipment; trying phone on 14 Mc. 2AGW is now at Lindfield and will be working land on 14 Mc. again soon.

2ATH busy at University; folded dipole 90 feet high and 15 watts works the DX. 4 Mc. 2CM on all bands, good results from dipoles and Window antennas. 2AM has over 100 countries post-war on

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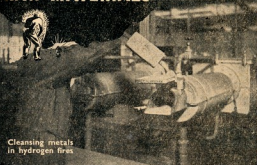


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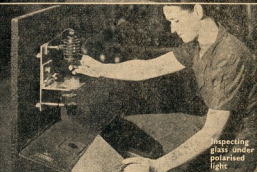


Chemical analysis  
of materials

## RAW MATERIALS



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in hydrogen fires



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glass under  
polarised  
light



Protecting bulbs with  
carbon lining



e.w.; thought to be thinking of using phone, 2BP has completed re-build of modulator and clipper, now a good job done. 2ACX has 150 countries post-war, now hopes to complete the glamour transmitter. 2HO is sold on v.h.f., gets out well from a poor location on 14 Mc. 244 Mc. band, but new receiver could only work 168 countries with old receiver. 2AGO has a really nice three element rotary on lower. 2AIG is not very active, QRL with exact 2XZ city for holiday; satisfied with vertical on 14 Mc.

**NORTH SHORE ZONE**  
2VN, N.S.W. Division "Frey", in threes of re-building after a accident. 2GO seriously considering giving away the key in favour of phone. 2AND wants tunnel drilled through hill to allow signs to get out. 2YL signs hi-power gang with 100 watts on 14 Mc. 2PY trying to work Zone 35 by mental telepathy if no other means successful. 2NB has his call to a Broadcast Station. 2AL has a 100 watt 2000 cycle re-building hi-power final to add to local QRM. 2GO, another of local hi-power gang, working XE with seven wave. 2ML, the "Great Hoak King", is active on phone and c.w. 2FM now active at Neutral Bay and hard on the heels of elusive 2DI. 2DI pushing hard for that 100th country. 2AM wants to work 2000 cycle on 14 Mc. 2YB must have sunk without trace. 2AII using cathode modulation, but hasn't been heard with his f.b. zig lately. 2YB has a 100 watt 2000 cycle re-build to rotate house with beam mounted on roof. 22FZ demonstrating nice line of "flash-overs" in power supplies. Peter Adams, ex-Secretary of Division, now in Europe 4th, located at 14 Mc. 2YB has heard snagging a few nice countries. Haven't heard 2DA in the dog-fights on 14 Mc. 2YB—given the name of the dog. 2YB has a 100 watt 2000 cycle good stuff. 2NI fairly active on 7 and 14 Mc. phone, with the two element beam up on the roof.

This is the first burst of these notes since pre-war days, and it is a good sign. 2YB has gone anywhere on the North Shore, which means from the Harbour Bridge to the Hawkesbury, and from there to the Pacific Ocean. 2YB has a 100 watt 2000 cycle re-build to rotate house with beam mounted on roof. 22FZ demonstrating nice line of "flash-overs" in power supplies. Peter Adams, ex-Secretary of Division, now in Europe 4th, located at 14 Mc. 2YB has heard snagging a few nice countries. Haven't heard 2DA in the dog-fights on 14 Mc. 2YB—given the name of the dog. 2YB has a 100 watt 2000 cycle good stuff. 2NI fairly active on 7 and 14 Mc. phone, with the two element beam up on the roof.

**NORTH COAST AND TABLELANDS**  
Not too much activity in the air this month. Flooded out the majority of the 2000 cycle. 2LH all back on 3.5 Mc. 2MO on 7 Mc. phone. 2SL still very active on 7 Mc., was visited by Ray 2SB; 2SL has a 100 watt 2000 cycle re-build to rotate house with beam mounted on roof. 2YB has heard snagging a few nice countries. Haven't heard 2DA in the dog-fights on 14 Mc. 2YB—given the name of the dog. 2YB has a 100 watt 2000 cycle good stuff. 2NI fairly active on 7 and 14 Mc. phone, with the two element beam up on the roof.

**NEWCASTLE ZONE**  
2AIIA makes the Australian DX C.C. not often heard on 7 Mc. 2YB still active on the v.h.f., crystal on 144 Mc. 2PQ fairly active on 7 Mc. phone. 2CI permanent position on about 7000 Kc. each week-end. 2CW Secretary of the local radio club, and still finds time to make 7 Mc. for the week-end. 2AIX using filters to cut the side off his telephony signals. 2XQ still working phone, but big re-build is under way. 2CX left before his old haunts and now to be found at Nelson's Bay, not heard on as yet.

**SOUTHERN LAKES**  
2KR heard on 7 Mc. with the usual good signals, talks of folded dipoles and new sticks. Nothing of 2AEZ since returning from holidays, suspect big building programme. 2BU still very active on 50 Mc. 2AMU only heard on 28 Mc. when skip permits, but plenty of DX heard calling him, so the beam is working. 2BU to report on 2YX this month. 2OC mainly on 50 Mc. and 144 Mc., has been heard in Ossack on the latter band. An ex-Wyong Ham, formerly 2CK of QRP fame, now 2YOGUW, Morey, wishes to be remembered to all his old friends and is anxious to contact VKA. 2PZ has taken time off from W.A.S. patrol to take a holiday, being going on 20th July. 2YB getting out around Newcastle district. 2KP also a keen 50 Mc. man, but keeps an ear on 28 Mc. 2YO still inactive. No report from 2YV, last news he was active on 144 Mc. 2XY believed to be building. 2MK puts a little time in on 28 Mc. phone. 2PZ admits a few more wires have gone into the receiver; tower with motor at the top is very impressive. Conditions must be poor in the zone as 2ADT was seen at the local picture show! 2YB has been managed to work 2YK 2YB has been 4th July, new receiver under way promised to be hot. 2YL also building new receiver and making alterations to shack.

**WESTERN ZONE**  
2ACU has a new folded dipole on 7 Mc. using 30 ohm cable, results really f.b. 2WH has been really busy, breaks and still that, who has 14 Mc. phone DX, recently had a contact with a

W6 re-broadcast over the N.R.C. Dubbo has another Ham, that makes six all active and as another, all using good gear the interference is too bad. 27Q heard on 7 Mc. with low power and the quality was much better than usual. 2AIX working all bands with excellent phone. 2TW re-building for higher power, 2NS always on 7 Mc. phone or 14 Mc. c.w.; 115 countries up. 2IE has built a new two terminal v.f.o., hear it is very stable.

2AIX fairly active on 7 Mc. phone, ARS giving some trouble. Expected more of the gang to make 3.5 Mc. this winter but 2JC the only consistent one. 2HC heard occasionally, lower power from batteries and generator. 2QA tries all bands and remains indifferent, too much and not enough. 2RT, hopes to rectify the latter shortly. 2HZ quite pleased to hear someone did like his voice. 2LY still re-building, even resigned from 7 Mc. after having his only crystal frequency squatted on. 2PH made the news in the daily press (Sydney), got married; don't know when beam will get finished. 2IZ contemplating operation on 28 Mc. 2APR possibly leaving Katoomba for Singleton.

**SOUTH COAST AND TABLELANDS**  
Wollongong Club has set up a station at its own club rooms, news from 2WU who has gone QRO to 16 watts. Type A Mark III used as an exciter driving 807s. 2GG heard operating from 2WPs. 2VH also active, running 15 watts to final v.f.o. controlled and is on 7 Mc. phone. Federal capital city news comes from 2JM who is active on 7 Mc. and 3.5 Mc. with 9 watts. 2TV was on 28 Mc. with 400 watts and 9 watts. 2P1s ARS modulators, rotary beam under way. 2P1 has been contacted from new QTH at Hall near A.C.T., but few gremlins loose in the r.f. section. 2DO had the pleasure of meeting up with an old timer Harry Hutton 2IV, who is now located at Duntroon Army School, was contacted through the club's transmitter. 2P2N heard briefly on 7 Mc. with 2GT, Ross uses 50 Mc. as the happy hunting ground. 2AIX with the usual solid signal continues a lot of changes when the warmer weather arrives. 2JQ on 7 Mc. with the usual good quality phone. 2ET, one of the first stations in A.C.T., has a 100 watt 2000 cycle re-build to rotate house with beam mounted on roof. 2YB has heard snagging a few nice countries. Haven't heard 2DA in the dog-fights on 14 Mc. 2YB—given the name of the dog. 2YB has a 100 watt 2000 cycle good stuff. 2NI fairly active on 7 and 14 Mc. phone, with the two element beam up on the roof.

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job at Bandiana. 2JA, 2QR and 2ANQ are not active mainly owing to lack of time. Wagga is again behind the "iron curtain," how about some news.

**VICTORIA**

At the July general meeting the talk on Ionospheric Predictions could not be given due to unforeseen circumstances. Three sound films on radio and acoustics were screened as an alternative programme. The first film was entitled "Sound Waves and their Sources." Starting with the action of a tuning fork, animated diagrams showed the formation of alternate compressions and rarefactions (disturbances) waves in air. The motion of the trans frequency, wavelength, and amplitude were illustrated. The vibration of a stretched string was pictured with excitation in fundamental and harmonic modes. The effect of harmonics on wave-shape and the quality of the sound followed and oscillograph patterns illustrated the difference in quality of sounds of equal pitch emitted by different orchestral instruments. The film concluded with a description of the human vocal mechanism and illustrated the production of speech sounds.

The second film was entitled "Fundamental Acoustics." It dealt with the propagation of sound waves. The mechanism of refraction was shown and diagrams illustrated how this could produce long distance sound propagation on a warm summer's evening. The structure of the human ear was illustrated and diagrams showed that this could produce long distance sound propagation on a warm summer's evening. The mechanism of refraction was shown and diagrams illustrated how this could produce long distance sound propagation on a warm summer's evening. The structure of the human ear was illustrated and diagrams showed that this could produce long distance sound propagation on a warm summer's evening.

The third film was entitled "Radio Receiver Principles and Design." Starting with a simple crystal receiver animated diagrams illustrated the principles of detection. The film dealt with coupled and resonant circuits in an elementary manner and dealt with electronic tube principles. After describing the action of a triode amplifier the circuit of a t.r.f. receiver was described.

The sympathy of members of the Victoria Division is extended to Bob Stevens (VK3OJ) and Herb Stevens (VK3JO) upon the recent loss of their father.

**FREQUENCY MODULATION LECTURES**

A course of five fortnightly lectures on Frequency Modulation and other recent developments in Radio Communications will be given at the Radio School,

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Melbourne Technical College, on Tuesdays, at 8 a.m. First lecture will take place on 3rd August. Fee for the course is 5/-.

Lecturers: Panel of Experts drawn from the Chief Engineer's Branch, P.M.G.'s Department.

Radio men, both professional and amateur, will be studying frequency modulation and other modern developments in radio communications for various purposes in the future. This course of lectures is intended as a preparation for a more specialised study. In it, a panel of engineers will give a summary of certain aspects of the subject with only small resort to mathematics. The course will be illustrated by films and slides from time to time.

The final lecture of the series, on high quality reproduction in broadcasting, will appeal to all those concerned with the production side of radio, as well as technicians, and is open to other than class members on payment of the usual fee of 1/-.

#### Synopsis:

August 3—General Survey of Frequency Modulation, Basic Principles, by A. H. Kaye, B.Sc., A.M.I.E. (Aust.).

August 17—Wave Propagation and Aerials by M. Moriarty, B.A., A.M.I.E.E., A.M.I.E. (Aust.).

August 21—Frequency Modulation in Broadcasting—Transmitters and Receivers.

September 14—Pulse and other methods in Radio Communication by J. D. Campbell.

September 28—High Quality Reproduction in Broadcasting by F. O. Viol.

Quorries at 191 Queen Street (FJ 6997), or at Adult Education Centre, 2nd Floor, 114 Flinders Street (Central 2421) on at the first lecture.

#### T.A.C. ACTIVITIES

Executive Group—At the June meeting of the group office-bearers for the ensuing fiscal year were elected. These are—Chairman: Mr. A. J. G. Glover, VK3ADG; Vice-Chairman: Messrs H. S. Stevens, VK3JO, and C. O. Quinn, VK3WQ; Secretary: Mr. D. A. Gray, VK3ADG; Council Representative: Mr. D. A. Gray, VK3ADG; Assistant Secretary: Mr. K. Seddon, VK3ACS. Ken Seddon, Assistant Secretary, is a newcomer to this group and his assistance will be greatly appreciated. The group, in re-electing George Glover as chairman of T.A.C., expressed sincere appreciation of the work he has been doing for the Division. The work of organising lectures and films at the general and group meetings has been almost entirely carried out by the chairman in his own time.

After a recent stocktaking of the Instrument Library, the following instrument was found to be missing: W.I.A. No. 9, Weston 0-150 Ma. d.c. meter, serial No. 111274. Any member who can supply information as to the whereabouts of this meter, please inform the Administrative Secretary or T.A.C. as soon as possible.

During the year, four direct reading absorption wavemeters covering the frequency range 55 to 400 Mc. were obtained and are available for loan. An "all wave" modulated oscillator, presented to the Institute some time ago by Mr. H. Rimnor, VK3EN is now in service and is available for loan to members requiring it.

Country members requiring loans of books, magazines (QST, etc.) or instruments should contact the Administrative Secretary by telephone or write to T.A.C. and the material will be despatched by post or rail, as appropriate.

A lecture and demonstration on v.h.f. and u.h.f. aerial design by Mr. C. Rollan, of P.M.G.'s Research Laboratories, scheduled for the last meeting of the V.H.F. Group, unfortunately had to be postponed to a later date at the last minute owing to the illness of the lecturer. In its place a demonstration of P.M.G.'s F.M. Receiver was given by Mr. C. Brown, of the P.M.G.'s Research Laboratories, who answered many questions and cleared up many misconceptions. The meeting greatly appreciated Mr. Brown's action in giving this lecture at such short notice.

#### FOOD FOR BRITAIN

The Victorian Division "Food for Britain Patriotic Fund" has completed its 15th month of operations, and has consigned in that time a total of 293 food parcels, which represents over a ton of food, and still has a goodly financial position. The balance sheet as at the 10th July, 1948, is as follows:—

Receipts	
Donations, General Meetings . . . . .	£137 14 8
"    Zones . . . . .	52 1 8
"    Victorian Council . . . . .	25 0 0
Raffles . . . . .	96 0 0
Bank Interest . . . . .	19 2
	<b>£311 15 6</b>

Expenditure	
Food Parcels . . . . .	£203 4 9
Petty Cash . . . . .	1 5 0
Cash, in Bank . . . . .	90 1 4
"    in Hand . . . . .	17 4 6
	<b>£311 15 6</b>

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There is a specific IRC Resistor for EVERY purpose—in all types and sizes of Metalized, Wire Wound and Volume Controls. It will be a pleasure to our IRC technicians to discuss and advise regarding any types of application.

# IRC RESISTORS

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The recent rally for the Mental Model Radio Amateur recalled the sum of \$3415/-, and was won by Miss M. Campbell, c/o T. G. G. Building, Melbourne, with the No. 27. Congratulations to Miss Campbell. The Committee wish to thank all those who so ably helped with the sale of tickets, and to those who bought so many tickets! We have no immediate raffish plans for the future, but in the meantime, keep those donations coming in. Please send any donations through your Zone Organiser or direct to "Food for Britain Fund", Box 5111, G.P.O., Melbourne.

#### SUGGESTIONS OFFERED

1290 Malvern Rd., Malvern, Vic.

Editor, "A.R." I am, in the interest of the W.I.A., suggesting that a position be established for the organisation to have an organiser or a recruiting officer, all for the purpose of rounding up outsiders and "stragglers." I do not know if you are aware of the position or not but there is quite a number of non-members who apparently are not giving any thought to the fact that they should become members. During the past year as a result of my enquiries in attending the General, V.E.P. T.A.C. and Receiver Group meetings plus the Hamfest and disposals I have noticed the same persons always in attendance for which they have no right and they have even obtained "proper gear" via members.

The W.I.A. is undoubtedly a union for the Amateurs, therefore being as such we should have an official created just like one as of a tradesman union, a person who could convey these people with the object of selling W.I.A. membership. A good move could also be made this way, why not to all A.O.C.P. students include the W.I.A. membership in the course. This would be a sure way of getting members as up to now, not all such students have sold out. However, it is a slight dirt at the W.I.A. by just making use of it, by the A.O.C.P., whereas by increasing the fees slightly, all intending students would automatically become members (student members) then on gaining their ticket would be granted full membership with the necessary adjustment as to their fees. It is no joke, but I have in my mind men who are not members and they have been on the air for the last twenty years!!

If such a position was brought about, I would consider it even though I am acting as monitor for the V.F.F. 144 Mc. band for 36 hours each week plus the notes in the magazine as well as compiler of notes at the meetings, and not for-

getting the sorting out work for the disposal section or acting as doorman for our new social nights. In my position if I can find time to do all these jobs then consider that the other members should fall into line and put their shoulder to the wheel as it seems a shame that your circular should have appeal for volunteers from so many members. In conclusion I do wish you every success in your efforts for a 1948-49 term.

—W. J. HARTLEY.

#### NORTH WESTERN ZONE

Members are reminded that the Zone Convention will take place during the last week-end of August, Saturday and Sunday, 28th and 29th August.

The Convention will be held at the home of Bruce Mann (VK3BM), Quambatool. Bruce's home is about two miles from the other members attending the Convention should have no trouble in finding it. (His map can just about be seen from the Town Editor.) It has been suggested that it might be wise to bring along some bedding with you for although there appears to be sufficient on hand to cover the multitude, a little extra would not go astray.

Would those who have not yet signified their intention of attending this Convention, and intend to do so, please notify VK3BM as soon as possible so that he can make suitable arrangements.

#### CENTRAL WESTERN ZONE

The Central Western Zone Convention will be held at Horsham on Sunday, 12th September, afternoon and evening. It will take the form of a 50 Mc. Field Day during the afternoon, a dinner at night, followed by annual meeting, a technical talk and (we hope) some technical films. The Zone will be pleased to welcome any members of Council who could make the trip or any other Hams who may be interested; 50 Mc. experts would be particularly welcome as V.H. has not had much practical application in the Zone as yet, although there is plenty of interest. Any visitors requiring accommodation at Horsham should contact VESTA who will be only too happy to arrange same.

31V is still enjoying the undoubted benefits of the local d.c. supply. The other night the powers that be reversed the polarity of the mains for several hours. All of Bill's electrics violently objected and went up. However he has a free 50 volts between the positive and earth for battery charging so why worry?

3ARM (way out in the west) has a new transmitter just waiting for his new generator, so he will soon be able to give the QRM a real run for

its money. 3AKP is lightly thumping with phone, but has not got very far as yet. 31K is busy with Test broadcast so is not on much, however he had a 50 Mc. wavemeter calibrated and was on the air in the time cricket finishes. Remember next Zone hook-up will be on Sunday 8th August, at 10 a.m. on 7150.

#### GEELONG BOYS FORM A RADIO CLUB

The Geelong Amateurs decided to form a Radio Club and have named it "The Geelong Amateur Radio Club." A meeting was called and officers/elected. Alex Bell (VK3ABE) was elected President; Jack Mathews (VK3BY) and Ed Kosove (VK3BE) Vice-Presidents; Bob Woolley (VK3IO) Secretary; Alf Porter (VK3JFP), Treasurer. The Committee are Bill Brownbill (VK3BU), Archie Woodhouse (VK3BW), Bruce Mann (VK3BM), and Phil Greig (VK3AP). Fred Freeman (VK3AL) was elected QSL Manager and Press Correspondent.

The first general meeting was held on 15th June, and was well attended by short wave listeners and Hams. A Type 3 Mark 2 transmitter and a Type A were demonstrated by 3ABE and 3AP. The club has planned to conduct field days, have lectures and demonstrate equipment, etc., also to meet for a chin wag and to help build hams.

#### EASTERN ZONE

The W.I.A. Emergency Network was brought to foot page news, when 3LS with three Eastern Zone stations, 3SS, 3AHK and 3JL all operating on 4984 Kc., played a big part in the locating of a boy who had strayed while his father was cutting wood in the heavily timbered country near Timbaly. 3SS and 3JL with portables went with the searchers and kept in communication with 3AHK, who was operating his home station and relayed message to 3LS who was in turn in touch with Russell Street.

3SE has become the proud father of a brand new junior cap, congrats Bill. 3QZ's business carries him far and wide, but Graham usually manages to return home on the week-ends. 3FR has just finished building a communication receiver and by reports is working extra well. Ron is anxiously awaiting the a.c. which he hopes to have soon. 3CI has been doing quite a lot of experimenting with beams, and has managed to put out a 8 signal on 50 Mc. from his home location. 3VL and 3US have been doing quite a lot of re-building, the last job being a complete new 50 Mc. transmitter and reports are very encouraging, both stations were operating on the 50 Mc. field day, one portable and the other from the home location.

## RADIO BARGAINS!

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Large stocks English and American including:	0-500 Micro Amp. 30/-
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807 . . . . . 12/6	0/2 Amp. R.F. 2in. Weston, 25/-
EF50 . . . . . 12/6	
EA50 . . . . . 6/0	0/350 M/A R.F. 25/-
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A meeting convened by the President of the Victorian Branch of the Wireless Institute of Australia was held at the Army School of Signals, Victoria, on 12th May 1942. The meeting was held in the evening. As a result of the meeting a sub-branch was formed with VK3RR as President and VK3PH as Secretary.

The zone is sorry to hear that it will be losing Mr. Murray, who has been a very active and useful member of the society, especially on the v.h.f. His new QTH will be Shepparton. 5DZ will be taking his place with 5AKM; both stations are active on 50 Mc., but 5DZ is not so active as 5AKM. You can put a battery charger so Len's battery worries are at an end. 3BB has put in an appearance again with a 59 signal on 7 and 3.5 Mc. Other active stations in the zone are 5ANC, 5APF, 5TJ and 5DI, but no news of the 5ile bore, what say, chaps.

Well, here we are again, full to the brim with city and country notes, and when I say country notes, that is what I mean. Just one country note, that is, a note from a country ham's enthusiasm, up hobs SUXX, unheralded and unsummoned, with a big batch of dolges concerning the Northern States. The way to handle this application? Any more of that later, now for the general meeting. The meeting was held on the 13th of the month, and the first thing I saw was the application. Any more of that later, now for the general meeting. The meeting was held on the 13th of the month, and the first thing I saw was the application. Any more of that later, now for the general meeting. The meeting was held on the 13th of the month, and the first thing I saw was the application.

Had to smile the other day when I heard 5XJ in contact with 5MD. It appears that Doc was explaining that GSD had clipped him for not giving his call sign every five minutes, and 5XJ said "these young men and country boys are a little bit like the old ones." Doc sounded as if he did not know whether to feel incensed or complimented. GFS was heard telling 5LR that the Q80 would have to be a short one as he (GFS) was going to have a bath. This innocent remark had caused a number of "distressed" moments among the boys, and judging by the large number of remarks, both complimentary and otherwise, a large number of sticky beams were listening in. Knowing GFS as I do, I can quite realise that once the year was up, he would be in contacts in the world could keep him from his bath.

Regarding the paragraph last month about SIT and his new "secret" weapon, I heard Tom working KHOFE on 28 Mc. and "Ella" asked him when he would be using his Sturba curtain. When he said that he was using it at the moment, she remarked that she had heard him louder on his beam. Well, well so much for the secret weapon. 5AJ heard

52R, who for some unexplainable reason calls himself "Zombie Radio," is still snaring any DX that pops up. Believe me, when it comes to 52R, I'm right amongst the DX with c.w., seems to have the secret of snapping up that elusive station that we all hear, but seldom contact. 51L is getting into fair share of Yanks using very, very correct procedure, very, very precise c.w. 53D is breaking waves with 52R on the W signals as usual; can't make out what these two have that I haven't. Perhaps they have had it less than I have. I will let you into a secret. 50D has been blasted with a "Pro Forma B. Reason" Rule 134, "but not" and "but we're" were really "but not" and "but not knowing" that rule, only he was the unlucky one. Don't let it happen to you.

I made up my mind to lay off Doc 5MD, but a correspondent has sent in news to the effect that bad-time stories as told by Doc are becoming very popular, now what could that mean? News has reached here that 5KL is a betting track and a blonde named April, W will welcome you Clarrie, and all the boys send their 73. At the time of writing the XYL of 5GS is in hospital, and we all hope down here that she is now fit and again training. I am sure that you will not detach the OM from the shack to help with the washing up, etc. 5CD, whilst awaiting the results of a recent exam for a commercial ticket, met with a slight accident, the details of which are not known. I am sure that you will be interested in the OM.

6JY is a welcome newcomer to the Northern Net, and the modulation was much improved on your second appearance. OM (I should talk). 6AX is also a bit better than last time. 6ZL is still there. Has the thrill ever yet? Last 6VM has been heard on schedule with his brother 3LU, on both phone and c.w. 6PH is being heard f.b. around Kadina way, in fact several Homs are thinking of installing bases in their receiving aerial for the time being. Is it notating 6ZL on the same direction. Quite the best signal from you Phil, for some time. 5XR has been heard testing, but so far has not joined the network. Jump in OM, the water's fine, or should I say the air is fine. Once again I think 5UX, and don't forget 12-100 news is good news, to all but 5PS ("Pansy" 12-100).

Well, just as I was putting the copy into the envelope to post away, along comes a batch of notes from the South East from a new and welcome friend GCH, and I hasten to include them, although the Editor has been holding his blue pencil in his hand for the last ten paragraphs. STW has recently had 480 volts d.c. installed, and has been chasing the c.w. on 14 Mc. GCH is a very busy man these days, has had a.c. installed; the only Ham in Mt. Gambier to enjoy that privilege. He works at the

5JA is trying to stretch his backyard to take half wave 7 Mc. aerial. Everybody is expecting to hear that all the boundary fences have mysteriously shifted overnight. He has a rotary beam on 144 Mc. and has a daily sked with 5MS. 6CJ is still in the country on batteries and is thinking of claiming the title for the longest time spent on the building. As we write this, 5MW is telling us that he has passed his first broadcast exam that he did. Congratulations OM, and keep the notes coming in. 5MS is building a new transmitter on 815 in the final. Has high hopes for a.e. ion, and is also keen on 144 Mc.

time, has a way been said that "the bigger they come, the heavier they fall." It's been told of a well known VKS who has been holding forth as the subject of v.f.o.'s., so much so that he had convinced everyone that of all the things he couldn't do was to use a v.f.o. Well seems as though someone has convinced him, for we understand he obtained sundry pieces of aluminum, capacitors and odds and ends, with the result that he is now using a v.f.o. on 14 Mc. Seems as though he has some more explaining to do to convince everyone that a PANSY has a sweet perfume.

The general meeting was held on 12th July. There were 53 members present and VK3APW (a visitor for 14 days). E. J. Thornton (6BF) was welcomed as a new member. Correspondence from WZ, 6MU and 2AWW was read. Owing to the similar situation a discussion was held as to the possibility of the W.L.A. to obtain from U.S.A. certain radio publications. Enquiries will be made and a outcome announced at the August meeting.

After the on-wag session GRU commented on the fact that certain VKs had been heard working the American phone band on 14 Mc. The contacts being of a local and very unimportant nature, such unnecessary QRM was being caused to other stations trying to work the Ws. A discussion followed and GDD pointed out that this only occurred occasionally and that generally the divisions of the band were respected.

A series of lectures headed as "My Amateur Station" was commenced. GWT gave a brief description of his equipment. It is hoped to have demonstrations of the operation of the various parts of the lecture and demonstration on "Band-width of the I.F. Channel." Equipment was set up to check commercial receiver. Using a frequency wobblers, the effect of the frequency on the receiver was clearly observed on the c.r.o. Mal then explained with a mathematical approach how the receiver was practically flat for plus minus 100 KHz. GWT also gave a description of the lecture on a piece of I.F.F. equipment. This was particularly interesting as its principles of operation were considered. Both the meeting well attended, closed at 8.30 PM.

GPH knows his way around Jandakot. Skipper says he just had his 74th birthday. He is still active. Amateur and claims that this hobby saves him money. We all hope Skipper will reach "Centurion Club!" GAP had a sad loss when he died up his \$13. Not enough vacuum! But you could see Alf's new QSL card! Who's the bloke at the top right-hand corner? GPR has bought him Alf one of those shiny new coil units. When are you going to listen to us again Fred?

COF was heard talking about 14 M. beams and  
died mill towers at the last W.I.A. meeting. How  
it getting out now Clarrie? GEC hasn't been  
ID recently. How about some dope from down  
Lynch way Eric? We hear GIN having a spell  
of rain. What's everything? How about  
again and that we will hear the old rig on  
soon. Very pleased to see G.W at the last  
I.A. meeting. He had a stack of DX cards to  
and too. How many times W.A.S. ID 6CK  
W.A.S. I was able to get the name on the  
card out a really f.b. c.w. and phone signal on  
c. Keep it up Col. Since GEF has gone V.I. for  
c. can be heard chasing the DX C.G. How many  
countries did you say--was it 95 or 99? Haven't  
heard from you for some time now. What's cooking  
a rig Bill?

WGD is at Nyrham. We expect to hear his phone  
gnals any day from now. GCD heard with a nice  
w. signal on 7 Mc. Good show Don and hope you  
in Dodge the electrical interference out your way.  
OR has been heard testing again. We thought big  
was all ready to go. How about it Jack? 6AW  
as crawling into the mike the other evening or  
Mc. What did you find there Dennis--was it  
VK2 or a VK6? 6AY is keeping Merredin on the



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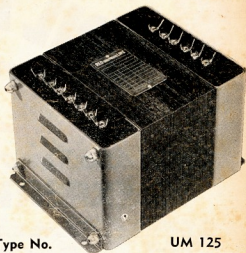
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